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Ms. Donna R. Searcy, Secretary Federal Communications Commission 1919 M Street, N.W. Washington, CD 20554

February 12, 1993

Dear Ms. Searcy:

I am writing in regard to RM. 8165, the requested amendent to the Commission's rules to establish a Radio Astronomy Communications Zone in Puerto Rico. I strongly support this requested amendment, and hope that it will be adopted.

I have only used the Arecibo Observatory once myself, but I have benefitted greatly as a member of the scientific community from the exciting discoveries that are continually made there. The work on pulsars alone has dramatically changed our understanding of the evolution of stars, and more recently, our understanding about how planets like the Earth might form. I also had the pleasure of participating in a television production from the public television science show, Newton's Apple, that dramatically illustrated the need behind this FCC amendment. We started the television segment with a view from the edge of the dish, with a tiny dot seen in the center. As the camera zoomed in, the dot was seen to be the host of the show, holding a lit match, and describing how all the energy ever collected by the dish was smaller than the energy in the match. This radio-quiet area is indeed a fragile resource to be protected.

I think it would be reasonable, from the scientific side alone, to ask for a very broad ban on radio transmissions in the area of the Observatory. I am pleasantly surprised by the flexibility and willingness of the Observatory personnel to work with local RFI producers to reduce the problems in ways that are sensitive to the needs of all parties. The Observatory has also taken great pains to do what it can to reduce its susceptibility from interference.

The requested amendment seems to me to be a very reasonable next step, and one that will facilitate continued cooperation, pre-empt problems, and protect the needs of all concerned. Thank you for your attention.

Sincerely,

Lawrence Rudnick Professor of Astronomy

Dir. of Graduate Studies